

Organochlorine Pesticides in Alaskan Fish, 2001-2012

Concentrations in parts/billion wet weight

Species	Tissue	N	Sum DDT, parts/billion wet wt			Sum Chlordanes, parts/billion wet wt		
			Mean ± Std Dev	Median	Range	Mean ± Std Dev	Median	Range
Pacific Halibut	Fillet	51	4.6 ± 5.7	3.3	0.15 - 33	1.8 ± 1.6	1.3	ND - 8.1
Pacific Cod	Fillet	5	0.18 ± 0.08	0.15	0.12 - 0.32	0.19 ± 0.08	0.15	ND - 0.32
Sablefish	Fillet	24	24 ± 32	10	0.56 - 111	7.9 ± 8.4	4.6	0.43 - 29
	Whole	5	74 ± 58	50	14 - 143	22 ± 13	17	7.4 - 38
Walleye Pollock	Fillet	16	0.54 ± 0.60	0.25	0.07 - 2.3	0.46 ± 0.37	0.27	ND - 1.2
Dusky Rockfish	Fillet	15	0.46 ± 0.42	0.36	0.11 - 1.5	0.74 ± 1.1	0.41	ND - 4.8
Capelin	Whole Composite	1			0.33			0.66
Eulachon	Whole Composite	7	1.3 ± 0.08	1.3	1.2 - 1.4	1.5 ± 0.15	1.6	1.2 - 1.6
Pacific Herring	Whole Composite	11	1.4 ± 0.44	1.5	0.34 - 2.0	1.6 ± 0.54	1.7	0.55 - 2.5
Sand Lance	Whole Composite	1			0.33			0.53
Salmon Shark	Fillet	8	61 ± 38	54	20 - 118	27 ± 22	20	7.1 - 70
Sleeper Shark	Fillet	1			49			34
Chinook Salmon	Juvenile	3	0.21 ± 0.03	0.20	0.19 - 0.25	0.55 ± 0.43	0.37	0.29 - 1.4
	Fry Composite	6	1.6 ± 1.2	1.1	0.83 - 4.1	0.27 ± 0.05	0.28	0.23 - 0.32
	Fillet	73	8.4 ± 4.0	7.9	1.2 - 19	9.8 ± 23	3.9	1.0 - 157
	Whole	15	15 ± 5.8	14	5.8 - 25	14 ± 12	8.7	3.3 - 41
Sockeye Salmon	Eggs	2		4.5	2.1 - 6.8		1.9	0.99 - 2.8
	Fillet	46	7.3 ± 5.9	5.0	0.17 - 22	10 ± 24	1.9	ND - 113
	Whole	16	5.2 ± 2.5	4.9	1.4 - 9.7	1.9 ± 0.65	1.9	0.84 - 3.2
Coho Salmon	Fry Composite	4	0.86 ± 0.45	0.86	0.46 - 1.3	1.4 ± 0.34	1.3	0.91 - 2.2
	Eggs	15	3.1 ± 0.76	3.1	1.7 - 4.6	0.42 ± 0.08	0.43	0.32 - 0.49
	Juvenile	7	1.6 ± 0.73	1.7	0.64 - 2.7	0.50 ± 0.11	0.50	0.37 - 0.67
	Fillet	75	0.95 ± 0.39	0.92	0.31 - 1.9	0.61 ± 0.33	0.54	ND - 2.8
	Whole	56	2.7 ± 0.72	2.7	1.5 - 5.4	1.4 ± 0.30	1.3	0.90 - 2.4
Chum Salmon	Fillet	30	1.5 ± 1.2	1.3	0.41 - 6.9	9.9 ± 25	1.0	0.32 - 108
Pink Salmon	Fillet	11	0.64 ± 0.14	0.64	0.49 - 0.98	0.41 ± 0.11	0.38	0.27 - 0.70
Arctic Char	Fillet	1			70			0.43
Dolly Varden	Fillet	1			33			0.51
Lake Trout	Fillet	2		9.7	1.8 - 17		4.2	2.7 - 5.6
	Whole	2		40	10 - 70		20	15 - 24
Humpback Whitefish	Fillet	2		0.55	0.14 - 0.95		0.62	0.23 - 1.0
	Whole	2		0.81	0.36 - 1.3		0.81	0.45 - 1.2
Sheefish	Fillet	8	0.70 ± 0.35	0.73	0.15 - 1.1	1.2 ± 0.62	1.3	0.18 - 1.9
Northern Pike	Fillet	10	0.19 ± 0.22	0.13	0.07 - 0.82	0.23 ± 0.18	0.17	0.11 - 0.73
	Whole	10	1.2 ± 1.8	0.68	0.35 - 6.4	1.2 ± 1.4	0.83	0.51 - 5.0

ND: Chlordanes, <0.01 to 4.39 ng/g

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		N	Total Toxaphenes, parts/billion wet wt			Dieldrin, parts/billion wet wt		
			Mean ± Std Dev	Median	Range	Mean ± Std Dev	Median	Range
Pacific Halibut	Fillet	51	9.1 ± 11	4.3	ND - 51	0.20 ± 0.25	0.11	ND - 1.3
Pacific Cod	Fillet	5	ND	ND	ND	0.04 ± 0.02	0.03	ND - 0.07
Sablefish	Fillet	24	51 ± 51	ND	ND - 146	0.76 ± 0.51	0.85	0.07 - 1.9
	Whole	5	122 ± 55	111	54 - 185	1.7 ± 0.28	1.6	1.5 - 2.1
Walleye Pollock	Fillet	16	20 ± 43	ND	ND - 153	0.04 ± 0.01	ND	ND - 0.06
Dusky Rockfish	Fillet	15	ND	ND	ND	0.07 ± 0.04	0.06	0.03 - 0.14
Capelin	Whole Composite	1			ND			0.38
Eulachon	Whole Composite	7	110 ± 95	81	ND - 285	0.88 ± 0.19	0.87	0.65 - 1.2
Pacific Herring	Whole Composite	11	12 ± 4.5	11	ND - 23	0.69 ± 0.28	0.69	0.19 - 1.3
Sand Lance	Whole Composite	1			ND			0.20
Salmon Shark	Fillet	8	108 ± 76	90	28 - 247	1.0 ± 0.27	0.95	0.64 - 1.4
Sleeper Shark	Fillet	1			209			4.1
Chinook Salmon	Fry Composite	6	7.7 ± 15	1.6	ND - 38	0.03 ± 0.01	0.03	ND - 0.05
	Juvenile	3	1.3 ± 0.37	1.1	ND - 1.7	0.03 ± 0.01	0.04	ND - 0.04
	Fillet	73	25 ± 20	19	ND - 120	0.60 ± 0.40	0.52	ND - 2.0
	Whole	15	39 ± 17	42	ND - 66	0.72 ± 0.32	0.75	0.10 - 1.2
Sockeye Salmon	Eggs	2		19	8.2 - 29		0.61	0.25 - 0.98
	Fillet	46	12 ± 10	ND	ND - 39	0.38 ± 0.29	0.30	ND - 1.3
	Whole	16	16 ± 7.8	14	ND - 30	0.30 ± 0.11	0.27	0.08 - 0.51
Coho Salmon	Eggs	15	10 ± 7.5	8.5	ND - 28	0.33 ± 0.08	0.33	0.21 - 0.48
	Fry Composite	4	ND	ND	ND - 25	0.07 ± 0.01	0.07	0.06 - 0.07
	Juvenile	7	ND	ND	ND	0.10 ± 0.03	0.11	0.06 - 0.13
	Fillet	75	3.3 ± 2.0	3.0	ND - 13	0.12 ± 0.06	0.10	ND - 0.35
	Whole	56	14 ± 30	10	ND - 232	0.30 ± 0.07	0.29	0.14 - 0.46
Chum Salmon	Fillet	30	ND	ND	ND - 16	0.28 ± 0.14	0.26	0.06 - 0.66
Pink Salmon	Fillet	11	ND	ND	ND - 3.6	0.14 ± 0.03	0.14	0.11 - 0.21
Arctic Char	Fillet	1			ND			0.08
Dolly Varden	Fillet	1			ND			ND
Lake Trout	Fillet	2		ND	ND - 12		0.09	0.05 - 0.13
	Whole	2		ND	ND - 80		0.31	0.23 - 0.39
Humpback Whitefish	Fillet	2		ND	ND		ND	ND
	Whole	2		ND	ND		ND	ND
Sheefish	Fillet	8	ND	ND	ND	0.11 ± 0.07	0.09	ND - 0.28
Northern Pike	Fillet	10	ND	ND	ND	ND	ND	ND - 0.06
	Whole	10	ND	ND	ND - 31	0.06 ± 0.05	ND	ND - 0.15

ND: Toxaphene, 0.63 to 305 ng/g; Dieldrin, <0.01 to 0.39 ng/g

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Concentrations in parts/billion wet weight

		N	Lindane and other Hexachlorocyclohexane			Hexachlorobenzene, parts/billion wet wt		
			Mean ± Std Dev	Median	Range	Mean ± Std Dev	Median	Range
Pacific Halibut	Fillet	51	0.66 ± 0.47	0.56	0.14 - 2.1	0.59 ± 0.61	0.38	0.11 - 3.4
Pacific Cod	Fillet	5	0.17 ± 0.09	0.13	0.10 - 0.32	0.17 ± 0.02	0.16	0.16 - 0.21
Sablefish	Fillet	24	2.7 ± 1.6	3.1	0.34 - 5.3	2.4 ± 1.7	2.8	0.21 - 5.0
	Whole	5	5.0 ± 0.46	5.3	4.4 - 5.5	4.8 ± 0.68	4.4	4.1 - 5.7
Walleye Pollock	Fillet	16	0.16 ± 0.08	0.12	0.10 - 0.37	0.17 ± 0.06	0.17	0.09 - 0.27
Dusky Rockfish	Fillet	15	0.45 ± 0.15	0.42	0.27 - 0.81	0.16 ± 0.05	0.16	0.09 - 0.24
Capelin	Whole Composite	1			2.2			0.79
Eulachon	Whole Composite	7	0.94 ± 0.21	0.85	0.66 - 1.2	2.7 ± 0.15	2.8	2.5 - 3.0
Pacific Herring	Whole Composite	11	1.5 ± 0.72	2.0	0.36 - 2.3	2.2 ± 0.72	2.4	0.67 - 3.0
Sand Lance	Whole Composite	1			0.66			0.75
Salmon Shark	Fillet	8	1.7 ± 0.44	1.6	1.3 - 2.5	3.6 ± 1.5	3.1	2.1 - 6.4
Sleeper Shark	Fillet	1			3.9			9.9
Chinook Salmon	Fry Composite	6	0.30 ± 0.08	0.30	0.19 - 0.42	0.27 ± 0.06	0.26	0.21 - 0.38
	Juvenile	3	0.42 ± 0.05	0.39	0.39 - 0.47	0.44 ± 0.03	0.42	0.41 - 0.48
	Fillet	73	1.5 ± 1.3	1.1	0.22 - 6.0	2.2 ± 0.95	2.1	0.52 - 5.2
	Whole	15	2.4 ± 1.6	3.1	0.19 - 4.5	3.7 ± 0.92	3.9	1.8 - 5.0
Sockeye Salmon	Eggs	2		1.5	1.4 - 1.6		3.1	2.5 - 3.6
	Fillet	46	1.2 ± 1.2	0.78	0.10 - 5.2	1.2 ± 0.80	0.96	0.20 - 3.7
	Whole	16	0.85 ± 0.67	0.76	0.06 - 2.4	1.4 ± 0.47	1.4	0.46 - 2.1
	Eggs	15	1.6 ± 0.99	1.4	1.1 - 5.1	1.8 ± 0.28	1.7	1.5 - 2.6
Coho Salmon	Fry Composite	4	0.38 ± 0.08	0.38	0.28 - 0.47	0.36 ± 0.04	0.37	0.31 - 0.39
	Juvenile	7	0.47 ± 0.14	0.41	0.27 - 0.67	0.47 ± 0.10	0.5	0.26 - 0.58
	Fillet	75	0.55 ± 0.40	0.45	0.15 - 2.6	0.49 ± 0.16	0.46	0.20 - 0.92
	Whole	56	1.3 ± 0.40	1.3	0.53 - 2.1	1.4 ± 0.23	1.4	0.84 - 1.9
	Fillet	30	0.86 ± 0.48	0.86	0.17 - 2.4	0.94 ± 0.44	0.94	0.25 - 2.1
Pink Salmon	Fillet	11	0.84 ± 0.22	0.91	0.30 - 1.1	0.38 ± 0.08	0.37	0.23 - 0.52
Arctic Char	Fillet	1			0.28			0.31
Dolly Varden	Fillet	1			0.18			2.3
Lake Trout	Fillet	2		0.19	0.18 - 0.20		0.84	0.22 - 1.5
	Whole	2		0.35	0.28 - 0.43		3.0	1.1 - 4.9
Humpback Whitefish	Fillet	2		0.17	0.11 - 0.22		0.57	0.21 - 0.94
	Whole	2		0.29	0.28 - 0.30		0.86	0.56 - 1.2
Sheefish	Fillet	8	0.22 ± 0.06	0.21	0.12 - 0.30	0.73 ± 0.41	0.69	0.11 - 1.6
Northern Pike	Fillet	10	0.23 ± 0.18	0.18	0.08 - 0.68	0.12 ± 0.04	0.10	0.08 - 0.21
	Whole	10	0.33 ± 0.14	0.31	0.15 - 0.65	0.61 ± 0.19	0.60	0.33 - 1.0